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| EXAMINER | |
|---|---|
| FORMAN, BETTY J | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1634 | |

DATE MAILED: 12/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/929,865 | HENDERSON ET AL. | |
| | Examiner | Art Unit | |
| | BJ Forman | 1634 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *25 September 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *14-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a)☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *9/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

**FINAL ACTION**

***Status of the Claims***

1. This action is in response to papers filed 25 September 2003 in which previous rejections was traversed and a Terminal Disclaimer and an Information Disclosure Statement were submitted.

The previous rejections in the Office Action dated 26 June 2003 reiterated below are maintained. The previous rejection under obviousness-type double patenting is withdrawn in view of the Terminal Disclaimer. All of the arguments have been thoroughly reviewed and are discussed below. New grounds for rejection necessitated by the Information Disclosure Statement are discussed.

Claims 1-13 and 17-20 are under prosecution.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

> granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 7-10 and 17 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Little et al (U.S. Patent No. 6,024,925, issued 15 February 2000).

Regarding Claim 1, Little et al disclose an apparatus for creating a molecular array comprising: a base (i.e. stage, Fig 1, #26) ; a Z controller operably connected to the base wherein the Z controller is selectively positionable along a Z axis; a deposition probe (i.e. robotic arm with pin assembly Fig. 1, #24 and #38) removable and operably connected to the Z controller so that the deposition probe is selectively positionable along the Z axis by the Z controller; an X, Y controller operably connected to the base wherein the X, Y controller is selectively positionable along an X axis and a Y axis, the X. Y controller further comprising a deposition substrate operably attached thereto and wherein the movement of the X, Y controller moves the deposition substrate between a first position and a second position, the second position being operably positioned relative to the deposition probe; and an X, Y translation stage operably connected to the base wherein the X, Y translation stage is selectively positionable along an X axis and a Y axis, the X, Y translation stage further comprising a loading substrate (i.e. source plate, Fig. 1, #20) operably attached thereto and wherein the movement of the X, Y translation stage moves the loading substrate between a first position and a second position, the second position being operably located relative to the deposition probe (Column 5, line 66-Column 6, line 67).

Regarding Claim 2, Little et al disclose the apparatus further comprising a control computer (i.e. data processor, Fig. 1, #12, Column 6, lines 1-28).

Regarding Claim 7, Little et al disclose the apparatus wherein the loading substrate comprises one or more deposition materials i.e. 384 wells with DNA samples (Column 9, lines 1-5).

Regarding Claim 8, Little et al disclose the apparatus further comprising an optical microscope operably attached to the base (i.e. optical encoders, Column 14, lines 37-48).

Regarding Claim 9, Little et al disclose the apparatus further comprising a force feedback monitor (i.e. feedback via motor-mounted rotary optical encoder, Column 14, lines 44-48).

Regarding Claim 10, Little et al disclose the apparatus wherein the deposition probe includes a tip (i.e. pin (Column 6, lines 1-13).

Regarding Claim 17, Little et al disclose an apparatus for creating a molecular array comprising: a Z controller; a deposition probe (i.e. robotic arm with pin assembly Fig. 1, #24 and #38) operably connected to the Z controller the deposition probe comprising a tip (i.e. pin (Column 6, lines 1-13); an X, Y controller operably attached to the Z controller and a deposition substrate operably affixed to the X, Y controller wherein the deposition substrate is selectively moveable between a first position and a second position and the X, Y controller moves the deposition substrate to the second position the deposition substrate operably positioned relative to the tip (Column 5, line 66-Column 6, line 67).

**Response to Arguments**

4. Applicant argues that Little et al do not teach an X, Y controller which moves a deposition substrate between a first and second position wherein the second position is operably positioned relative to the deposition probe because the substrates of Little et al are placed on a stage and are not movable between positions.

The argument has been considered but is not found persuasive because the claim is broadly drawn to a deposition substrate and a loading substrate. Applicant appears to be arguing that the instantly claimed deposition substrate is equivalent to the substrate on which Little deposits the sample and that the loading substrate is equivalent to the microtiter source plate of Little. However, the instant claims are not so limited.

The claims do not define or describe structurally the deposition substrate and/or the loading substrate. Little et al teach a housing (#52 & #54 illustrated in Fig. 3) operably connected to the x, y controller and a inner chamber (#58) comprising a loading valve assembly (#80) operably connected to the x, y controller (see Fig. 2 & 3 and Column 7, lines 10-54). The substrate #54 of Little is a substrate, operably attached to the x, y controller and is positioned relative to the deposition probe as instantly claimed. Furthermore, the inner chamber and loading valve assembly of Little is moved by the x, y translation stage and positioned relative to the deposition probe as instantly claimed. Therefore, Little et al teach the apparatus as claimed.

**NEW GROUNDS FOR REJECTION NECESSITATED BY IDS OF 9/03**

5. Claims 1, 2, 10 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Gamble et al (U.S. Patent No. 5,981,733, issued 9 November 1999).

Regarding Claim 1, Gamble et al disclose an apparatus comprising a base (#100, Fig. 9-14), a Z controller operably connected to the base (#46 Fig. 9-14), a deposition probe removably and operably connected to the Z controller (#68, Fig. 9-14), an x, y controller operably connected to the base wherein the x, y controller is selectively positionable along an x axis and a y axis (Column 8, lines 35-67) and wherein movement of the x, y controller moves the deposition substrate (#20, Fig. 9-14) relative to the deposition probe and an x, y translation stage (actuator Fig. 12B, Column 10, line 66-Column 11, line 7) operably connected to the base wherein the stage further comprises a loading substrate (reaction chamber #26) wherein movement of the translation stage moves the loading substrate relative to the deposition probe (Fig. 9-14 and Column 8, line 35-Column 11, line 7).

Regarding Claim 2, Gamble et al disclose the apparatus further comprising a control computer (Column 5, lines 10-22).

Regarding Claim 10, Gamble et al disclose the apparatus wherein the probe includes a tip (Column 10, lines 9-15 and #46, Fig. 9-14).

Regarding Claim 17, Gamble et al disclose an apparatus comprising a Z controller, a deposition probe comprising a tip operably attached to the Z controller, an X, Y controller operably attached to the Z controller and a deposition substrate operably affixed to the X, Y controller wherein the substrate is movable between a first and second position and the X, Y controller moves the substrate relative to the tip (Fig. 9-14 and Column 8, line 35-Column 10, line 15).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 3, 4, 11, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Little et al (U.S. Patent No. 6,024,925, issued 15 February 2000) in view of Regan et al (U.S. Patent No. 6,395,554, filed 3 September 1999).

Regarding Claims 3-4 and 11, Little et al disclose an apparatus for creating a molecular array comprising: a base (i.e. stage, Fig 1, #26); a Z controller operably connected to the base wherein the Z controller is selectively positionable along a Z axis; a deposition probe (i.e. robotic arm with pin assembly Fig. 1, #24 and #38) removable and operably connected to the Z controller so that the deposition probe is selectively positionable along the Z axis by the Z controller; an X, Y controller operably connected to the base wherein the X, Y controller is selectively positionable along an X axis and a Y axis, the X. Y controller further comprising a deposition substrate operably attached thereto and wherein the movement of the X, Y controller moves the deposition substrate between a first position and a second position, the second position being operably positioned relative to the deposition probe; and an X, Y translation stage operably connected to the base wherein the X, Y translation stage is selectively positionable along an X axis and a Y axis, the X, Y translation stage further comprising a loading substrate (i.e. source plate, Fig. 1, #20) operably attached thereto and wherein the movement of the X, Y translation stage moves the loading substrate between a first position and a second position, the second position being operably located relative to the deposition probe (Column 5, line 66-Column 6, line 67) wherein all functions of the apparatus are operably connected to the control computer (Column 6, lines 1-28). Little et al do not teach the apparatus comprising a humidity controller to control humidity around the deposition probe. However, humidity control was known in the art at the time the claimed invention was made as taught by Regan et al who teach that it is important to control humidity during array deposit to thereby prevent evaporation (Column 1, lines 52-65). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the apparatus of Little et al by incorporating a humidity controller to thereby prevent evaporation of the deposited material prior to or during deposition for the expected benefit of accurate deposit as taught by Regan et al (Column 1, lines 52-65).

Regarding Claim 18, Little et al disclose an apparatus for creating a molecular array comprising: a base (i.e. stage, Fig 1, #26) ; a Z controller operably connected to the base wherein the Z controller is selectively positionable along a Z axis; a deposition probe (i.e. robotic arm with pin assembly Fig. 1, #24 and #38) removable and operably connected to the Z controller so that the deposition probe is selectively positionable along the Z axis by the Z controller; an X, Y controller operably connected to the base wherein the X, Y controller is selectively positionable along an X axis and a Y axis, the X. Y controller further comprising a deposition substrate operably attached thereto and wherein the movement of the X, Y controller moves the deposition substrate between a first position and a second position, the second position being operably positioned relative to the deposition probe; and an X, Y translation stage operably connected to the base wherein the X, Y translation stage is selectively positionable along an X axis and a Y axis, the X, Y translation stage further comprising a loading substrate (i.e. source plate, Fig. 1, #20) operably attached thereto and wherein the movement of the X, Y translation stage moves the loading substrate between a first position and a second position, the second position being operably located relative to the deposition probe (Column 5, line 66-Column 6, line 67). Little et al do not teach the apparatus comprising a humidity controller to control humidity around the deposition probe. However, humidity control was known in the art at the time the claimed invention was made as taught by Regan et al who teach that it is important to control humidity during array deposit to thereby prevent evaporation (Column 1, lines 52-65). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the apparatus of Little et al by incorporating a humidity controller to thereby prevent evaporation of the deposited material prior to or during deposition for the expected benefit of accurate deposit as taught by Regan et al (Column 1, lines 52-65).

Regarding Claim 20, Little et al teach an apparatus comprising and X, Y, and Z controller; a loading substrate operably and movably attached to the Z controller i.e. the Z

controller positions the pin assembly over the loading substrate (i.e. source plate) whereby the loading substrate is operably and movable attached to the Z controller (Column 6, lines 1-13). The apparatus further comprising a deposition substrate operably and movably attached to the Z controller i.e. the Z controller positions the pin assembly over the deposition substrate (i.e. substrate, Fig. 1 #34) whereby the substrate is operably and movable attached to the Z controller (Column 6, lines 1-13). The apparatus further comprising a deposition probe operably attached to the Z controller i.e. the Z controller moves the pin assembly (Column 6, lines 1-13). Little et al do not teach the apparatus comprising a humidity controller to control humidity around the deposition probe. However, humidity control was known in the art at the time the claimed invention was made as taught by Regan et al who teach that it is important to control humidity during array deposit to thereby prevent evaporation (Column 1, lines 52-65). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the apparatus of Little et al by incorporating a humidity controller to thereby prevent evaporation of the deposited material prior to or during deposition for the expected benefit of accurate deposit as taught by Regan et al (Column 1, lines 52-65).

**Response to Arguments**

8. Applicant argues that Regan et al do not cure the deficiencies of Little et al and therefore the combination of Regan et al and Little et al does not teach the instant invention. The argument has been considered but is not found persuasive for the reasons stated above regarding Little.

9. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Little et al (U.S. Patent No. 6,024,925, issued 15 February 2000) in view of Tonucci et al (U.S. Patent No. 6,087,274, filed 3 March 1998).

Regarding Claims 5 and 6, Little et al disclose an apparatus for creating a molecular array comprising: a base (i.e. stage, Fig 1, #26) ; a Z controller operably connected to the base wherein the Z controller is selectively positionable along a Z axis; a deposition probe (i.e. robotic arm with pin assembly Fig. 1, #24 and #38) removable and operably connected to the Z controller so that the deposition probe is selectively positionable along the Z axis by the Z controller; an X, Y controller operably connected to the base wherein the X, Y controller is selectively positionable along an X axis and a Y axis, the X. Y controller further comprising a deposition substrate operably attached thereto and wherein the movement of the X, Y controller moves the deposition substrate between a first position and a second position, the second position being operably positioned relative to the deposition probe; and an X, Y translation stage operably connected to the base wherein the X, Y translation stage is selectively positionable along an X axis and a Y axis, the X, Y translation stage further comprising a loading substrate (i.e. source plate, Fig. 1, #20) operably attached thereto and wherein the movement of the X, Y translation stage moves the loading substrate between a first position and a second position, the second position being operably located relative to the deposition probe (Column 5, line 66-Column 6, line 67) wherein the Z axis spans 50m m and the X and Y axis span 250 and 400m m (Column 14, lines 37-48) but they are silent regarding the spatial resolution along the X, Y and Z axis. However, spatial resolution of 200nm along a Z axis and 20 nm along an X and Y axis were well known in the art at the time the claimed invention was made as taught by Tonucci et al who teach an apparatus comprising X, Y and Z controllers wherein the Z axis has a spatial resolution of approximately 200nm and the X and Y axis has a spatial resolution of approximately 20 nm (Column 6, lines 46-64). Furthermore they Tonucci et al teach that the spatial resolution of their apparatus produces exceptional

devices having minimum feature sizes (Column 6, lines 46-49). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the spatial resolution of Tonucci et al to the X, Y and Z controllers of Little et al to thereby produce exceptional devices having minimum feature sizes as taught by Tonucci et al (Column 6, lines 46-49).

**Response to Arguments**

10. Applicant argues that Tonucci et al do not cure the deficiencies of Little et al and therefore the combination of Tonucci et al and Little et al does not teach the instant invention. The argument has been considered but is not found persuasive for the reasons stated above regarding Little.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Little et al (U.S. Patent No. 6,024,925, issued 15 February 2000) in view of Anderson et al (U.S. Patent No. 5,993,627, issued 30 November 1999).

Regarding Claim 12, Little et al disclose an apparatus for creating a molecular array comprising: a base (i.e. stage, Fig 1, #26) ; a Z controller operably connected to the base wherein the Z controller is selectively positionable along a Z axis; a deposition probe (i.e. robotic arm with pin assembly Fig. 1, #24 and #38) removable and operably connected to the Z controller so that the deposition probe is selectively positionable along the Z axis by the Z controller; an X, Y controller operably connected to the base wherein the X, Y controller is selectively positionable along an X axis and a Y axis, the X. Y controller further comprising a deposition substrate operably attached thereto and wherein the movement of the X, Y controller moves the deposition substrate between a first position and a second position, the second position being operably positioned relative to the deposition probe; and an X, Y

translation stage operably connected to the base wherein the X, Y translation stage is selectively positionable along an X axis and a Y axis, the X, Y translation stage further comprising a loading substrate (i.e. source plate, Fig. 1, #20) operably attached thereto and wherein the movement of the X, Y translation stage moves the loading substrate between a first position and a second position, the second position being operably located relative to the deposition probe (Column 5, line 66-Column 6, line 67) wherein their X, Y, Z controller is computer driven motion control (Column 14, lines 37-60) but they do not teach the computer control is via a stepper motor control card. However, it was well known in the art at the time the claimed invention was made that stepper motor control cards facilitate deposition of various materials having different weights and compositions as taught by Anderson et al (Column 11, lines 64-Column 12, lines 18). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the stepper motor control card of Anderson et al to the computer controlled deposition of Little et al to thereby facilitate deposition of various materials as taught by Anderson et al (Column 11, lines 64-Column 12, lines 18).

**Response to Arguments**

12. Applicant argues that Anderson et al do not cure the deficiencies of Little et al and therefore the combination of Anderson et al and Little et al does not teach the instant invention. The argument has been considered but is not found persuasive for the reasons stated above regarding Little.

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Little et al (U.S. Patent No. 6,024,925, issued 15 February 2000) in view Anderson et al (U.S. Patent No. 5,993,627, issued 30 November 1999) as applied to Claim 12 above and further in view of

Regan et al (U.S. Patent No. 6,395,554, filed 3 September 1999) and Morozov et al (U.S. Patent No. 6,350,609, filed 8 May 2000).

Regarding Claim 13, Little and Anderson et al teach the apparatus of Claim 12 as discussed directly above. However, they do not teach the apparatus comprising a humidity controller to control humidity around the deposition probe. However, humidity control was known in the art at the time the claimed invention was made as taught by Regan et al who teach that it is important to control humidity during array deposit to thereby prevent evaporation (Column 1, lines 52-65). Furthermore, Morozov et al teach that humidity is controller comprises a dry gas source humidity source i.e. chamber and gas flow monitor (Column 23, lines 29-37 and Column 31, line 54-Column 32, line 5). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the apparatus of Little et al by incorporating a humidity controller to thereby prevent evaporation of the deposited material prior to or during deposition for the expected benefit of accurate deposit as taught by Regan et al (Column 1, lines 52-65).

**Response to Arguments**

14. Applicant argues that cited references do not cure the deficiencies of Little et al and therefore the combination of references with Little et al does not teach the instant invention. The argument has been considered but is not found persuasive for the reasons stated above regarding Little.

15. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Little et al (U.S. Patent No. 6,024,925, issued 15 February 2000) in view of Regan et al (U.S. Patent No.

6,395,554, filed 3 September 1999) as applied to Claim 20 above and further in view of Mirkin et al (U.S. Patent Application Publication No. 2002/0063212, filed 7 January 1999).

Regarding Claim 20, Little et al teach an apparatus comprising and X, Y, and Z controller; a loading substrate operably and movably attached to the Z controller i.e. the Z controller positions the pin assembly over the loading substrate (i.e. source plate) whereby the loading substrate is operably and movable attached to the Z controller (Column 6, lines 1-13). The apparatus further comprising a deposition substrate operably and movably attached to the Z controller i.e. the Z controller positions the pin assembly over the deposition substrate (i.e. substrate, Fig. 1 #34) whereby the substrate is operably and movable attached to the Z controller (Column 6, lines 1-13). The apparatus further comprising a deposition probe operably attached to the Z controller i.e. the Z controller moves the pin assembly (Column 6, lines 1-13). Little et al do not teach the apparatus comprising a humidity controller to control humidity around the deposition probe. However, humidity control was known in the art at the time the claimed invention was made as taught by Regan et al who teach that it is important to control humidity during array deposit to thereby prevent evaporation (Column 1, lines 52-65). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the apparatus of Little et al by incorporating a humidity controller to thereby prevent evaporation of the deposited material prior to or during deposition for the expected benefit of accurate deposit as taught by Regan et al (Column 1, lines 52-65).

Little et al do not teach the apparatus further comprises an ozone source. However, it was well known in the art at the time the claimed invention was made that cleaning deposition probe tips with ozone increases the hydrophobicity of the probe tip as taught by Mirkin et al (¶ 54). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the apparatus of Little et al by adding an ozone source for cleaning and increasing the hydrophobicity of the probe tip for the expected benefit of facilitating deposition of aqueous materials as taught by Mirkin et al (¶ 54).

**Response to Arguments**

16. Applicant argues that cited references do not cure the deficiencies of Little et al and therefore the combination of cited references with Little et al does not teach the instant invention. The argument has been considered but is not found persuasive for the reasons stated above regarding Little.

Applicant further argues that Mirkin et al is not prior art because the listing of priority documents on the front of the Patent Application Publication lists the priority documents in reverse order thereby calling into question Mirkin's priority. However, the priority date for the passage cited above is at least the date of the parent document i.e. 09/477,997, now U.S. Patent No. 6,635,311. A courtesy copy of the patent is enclosed with this action.

***Double Patenting***

17. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

18. Claim 1 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of copending Application No. 10/128,727. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

**Response to Applicant's Comments**

19. Applicant states that Claim 1 of the '727 application will be canceled upon allowance of instant Claim 1. The statement is acknowledged. However, the statement does not overcome the above rejection. The rejection is maintained and made FINAL.

20. Applicant's Information Disclosure Statement necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**Conclusion**

21. No claim is allowed.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (703) 306-5878 until 13 January 2004. Starting 14 January 2004, the examiner's phone number will be (517) 272-0741. The examiner can normally be reached on 6:00 TO 3:30 Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (703) 308-1119. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 308-8724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196. Starting 14 January 2003, the receptionist telephone number will be (517)-272-0507.

BJ Forman, Ph.D.
Primary Examiner
Art Unit: 1634
December 17, 2003